REMARKS

In response to the Final Office Action dated August 8, 2005, Applicants file herewith a Request for Continued Examination (RCE) accompanied by a Response to the Final Office Action dated July 8, 2005. Favorable consideration of the application is respectfully requested.

Claims 35-36 and 62-63 remain rejected by the Examiner under 35 USC 112, first paragraph, because the specification, "while being enabling for methods for stimulating and/or expanding T cells using a peptide encoded by a particular subsequence of SEQ ID NO: 110 (the peptide disclosed as SEQ ID NO: 337), and for isolated T cell populations comprising T cells prepared by such methods, does not reasonably provide enablement for methods for stimulating and/or expanding T cells using the numerous other polypeptides encompassed by the claims." (Final Office Action; pgs. 3-4.)

Applicants respectfully traverse this rejection and submit the specification fully enables one of skill in the art to make and/or use the presently claimed invention. Applicants' specification as filed describes numerous fragments of the polypeptide encoded by SEQ ID NO: 110 (referred to as P501S) that have been experimentally determined to be capable of stimulating T cells. Example 6 of the specification as filed demonstrates the identification of a naturally processed P501S epitope (SEQ ID NO: 337) that is expressed in the context of the human HLA-A2.1 molecule. Further, Example 12 of the specification illustrates the generation of a human CTL line using in vitro whole gene priming with P501S cDNA (SEQ ID NO: 110), followed by the identification of active fragments and particular epitopes effective for stimulating the T cells (*e.g.*, pgs. 153-155 of the instant specification). Using this approach, the following positive fragments of the polypeptide encoded by SEQ ID NO: 110 were identified as being capable of stimulating proliferation of the P501S-specific T cells: amino acid residues 106-553 of SEQ ID NO: 113 (encoded by nucleotide residues 598-1939, as claimed); amino acid residues 136-547 of SEQ ID NO: 113 (encoded by nucleotide residues 688-1921, as claimed); amino acid residues 351-547 of SEQ ID NO: 113 (encoded by nucleotide residues 1333-1921, as claimed); amino acid residues 351-472 of SEQ ID NO: 113 (encoded by nucleotide residues 1333-1696, as claimed); and amino acid residues 370-379 of SEQ ID NO: 113 (encoded by nucleotide residues

1390-1417, as claimed). Finally, amino acid residues 376-384 of SEQ ID NO: 113 (encoded by nucleotide residues 1408-1432, as claimed) were identified as a minimal 9-mer amino acid sequence of the polypeptide encoded by SEQ ID NO: 110 giving a strong response. As demonstrated by Example 12, this minimal 9-mer sequence, as well as larger fragments comprising the 9-mer sequence, were shown to be capable of stimulating human T cells.

Applicants thus emphasize that the specification as filed describes and demonstrates numerous examples of polypeptides comprising at least a 9 amino acid fragment of the polypeptide by SEQ ID NO: 110, as claimed, that can be used in methods for stimulating human T cells. Moreover, additional illustrative fragments encompassed by the claimed invention can be identified by the skilled artisan using only Applicants' disclosure in conjunction with routine methodologies described in the specification and/or available in the art. Enablement is not precluded by the necessity for some experimentation such as routine screening, even if such routine screening is time-intensive. *In re Wands*, 858 F.2d 731, 737, 8 U.S.P.Q.2d 1400, 1406 (Fed. Cir. 1988). Applicants acknowledge that some experimentation may be required in order to identify further P501S T cell-stimulating fragments for use in the claimed methods, however such experimentation would merely involve routine screening along the lines described by Applicants' specification as filed. Thus, in light of the general guidance in the form of methods useful for identifying and characterizing T cell-stimulating sequences, and the specific guidance in the form of experimentally identified T cell-stimulating fragments, Applicants submit that the skilled artisan could practice the full scope of the claimed invention without undue experimentation and with a reasonable expectation of success.

In the Final Office Action, the Examiner further asserts that, "the claims as written require only a step of 'contacting' with 'T cells', not a step, *e.g.*, of contacting with previously stimulated T cells that are specific for P501S...In contrast, the example cited by Applicant as supporting enablement of the instant claims (Example 12) describes the screening of a very specific, particular type of T cell (T cells already stimulated by P501S) to determine which fragments of P501S are reactive with such T-cells (and which therefore constitute reactive epitopes of the protein)." The Examiner concludes that "while Applicants' arguments might be

persuasive with respect to claims to a method such as that performed in Example 12, they are not pertinent to the invention of the instant claims."

Applicants respectfully submit that the illustrative examples provided in the specification as filed are highly pertinent to the claimed methods and would be recognized as such by the artisan of ordinary skill. The specification describes that T cells (*e.g.*, from bone marrow or peripheral blood of patient) may be contacted with a prostate-specific polypeptide such as P501S in order to stimulate the proliferation of antigen-specific T cells. The specification further describes that the antigen-specific T cells may be expanded, for example by re-exposure to the prostate-specific polypeptide, or to a peptide corresponding to an immunogenic portion of the polypeptide (*e.g.*, page 91, line 23 to page 92, line 13).

Applicants acknowledge that Example 12 describes the use of previously stimulated T cells specific for P501S in order to identify sub-fragments capable of contributing to the observed T cell stimulation. This does not mean, however, that one skilled in the art could not practice the invention as it is currently claimed or that the claimed methods must be limited to those in which only previously stimulated T cells are used in the "contacting" step. Rather, the skilled artisan would appreciate that a P501S epitope sequence, as well as larger P501S polypeptide fragments containing the epitope, could be made and used across the full scope of the present invention either to stimulate antigen-specific T cells and/or to expand antigen-specific T cells from an already stimulated population of T cells.

Applicants are thus unclear why the Examiner appears to suggest that the present disclosure enables only a method in which a polypeptide of the invention is contacted with T cells which have already been stimulated, but does not enable a method in which a polypeptide of the invention is contacted with previously stimulated T cells, when it would be understood by the skilled individual that the very same P501S polypeptides useful for stimulation are also useful for expansion, and vice versa. There is no technical basis of which Applicants are aware that would lead a skilled artisan to believe that the claimed methods should be limited only to methods involving contacting a P501S polypeptide with previously stimulated, P501S-specific T cells. Both approaches are enabled by the instant disclosure and both approaches could be

practiced by the skilled artisan without undue experimentation and with a reasonable expectation of success. Reconsideration of this rejection is respectfully requested.

Claims 35-36 and 62-66 also stand rejected under 35 USC 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claims the subject matter regarded as the invention. According to the Examiner, the claims are indefinite because it is unclear whether the claims are drawn to methods for stimulating and/or expanding a population of T cells that is specific for an amino acid sequence encoded by SEQ ID NO: 110 and/or whether the claims encompass methods in which naïve T cells are first activated (so as to become "specific for" an amino acid sequence encoded by SEQ ID NO; 110), and then stimulated and/or expanded. The Examiner further states that it is not clear from the language of the preambles whether the recitation of "method for stimulating and/or expanding T cells specific for an amino acid sequence encoded by SEQ ID NO: 110" does or does not limit the types of T cells employed.

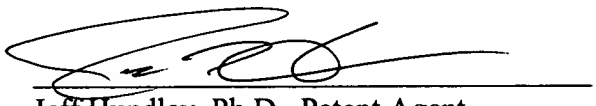
Applicants respectfully traverse this rejection and submit that a skilled artisan would not view the present claim language as ambiguous or indefinite. The claim language does not and should not limit the types of T cells employed in the claimed methods when the skilled artisan would understand, based upon well established knowledge in the immunological arts, that the methods need not be limited in this manner in order to practice them. Rather, as discussed above, it would be understood in view of Applicants' disclosure that the claimed methods can be used to stimulate antigen-specific T cells (*e.g.*, to generate P501S-specific CTL lines as described in Example 12) and/or to expand antigen-specific T cells that have been previously stimulated. The very same P501S polypeptides useful for stimulating antigen-specific T cells in the methods of the present invention are also useful for expanding antigen-specific T cells. In this regard, there is nothing ambiguous or indefinite about the phrase "stimulating and/or expanding" in the context of the claimed invention, and the skilled artisan would understand the metes and bounds of the claims in light of Applicants' disclosure. Reconsideration is respectfully requested.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

SEED Intellectual Property Law Group PLLC



Jeff Hundley, Ph.D., Patent Agent
Registration No. 42,676

JEH:mcs

Enclosure:
Postcard

701 Fifth Avenue, Suite 6300
Seattle, Washington 98104-7092
Phone: (206) 622-4900
Fax: (206) 682-6031

610692_1.DOC